

Serial No.: 09/559,594
Art Unit: 2665

Attorney's Docket No.: BS99-185
Page 3

Amendments to the Specification:

Please amend the first paragraph of the present application, beginning at page 1, line 4, as shown below.

B1
This application is a continuation-in-part application of U.S. Patent No. 6,069,882 filed on July 30, 1997 (the '882 patent) ^{^08/903,534, NOW} Application Serial No. 08/903,534, filed on July, 30, 1997 (the '534 application). The present application claims priority from the '882 patent '534 application, which is incorporated herein by reference. The application also incorporates by reference U.S. Application Serial No. 09/559,593, filed April 28, 2000, U.S. Patent No. _____ Attorney Docket No. BS99-186.

Please amend the paragraph of the present application, beginning at page 7, line 10 and ending at page 7, line 18, as shown below.

B2
Cell tower 13 is in communication with access control manager 14. Access control manager 14 communicates with a plurality of cell towers to control access to the wireless network. Access control manager may be regionally located, as one of several access control managers on a network, or may be centrally located for the entire network. Access control manager 14 communicates with access buffer 15 which stores data received from the internet 16 before it is transmitted on the wireless network, and with transactions records database 20, which stores a transaction record in a subscriber's account.

Serial No.: 09/559,594
Art Unit: 2665

Attorney's Docket No.: BS99-185
Page 4

Please amend the paragraph of the present application, beginning at page 10, line 14 and ending at page 11, line 2, as shown below.

B3
The cell tower forwards a control packet with a transmission request to the access control manager in step 31. The control manager then performs an evaluation of the existing capacity on the wireless network, in step 32. If there is an available access link, the requested capacity is allocated to the handset for the transaction, in step 33. The access control manager then sends access authorization to the corresponding cell tower to be transmitted to the handset in step 34. The handset begins transmission of the data packets in its queue, which are received by the cell tower in step 35. The packets are then forwarded to the Internet and a transaction record is stored in the transactions records database in the subscriber's account in step 36, and a confirmation is sent to the handset to complete the transmission for the transaction.

Please amend the paragraph of the present application, beginning at page 12, line 10 and ending at page 12, line 21, as shown below.

B4
When there are no available access links on the wireless network, the access control manager next evaluates in step 48 whether there are any access links that are transmitting packets for transactions of lower priority than the pending transaction request. The priority level designated in a control packet for a transaction in the access buffer can be forwarded by the sender over the internet, or it may be the default level for the type of application that corresponds with the data packets. If there is a lower priority transmission occurring, the access control manager discontinues the lower priority transaction in favor of a higher priority transmission, in

25

B

B4
step 49 step 37. Access is then granted to the access buffer according to steps 43-46, as previously described. Steps 43-46 for granting access to the access buffer to handle packets that are incoming to the handsets are inversely related to steps 33-36 for granting access to the handset to handle packets leaving the handset, previously described. If there is no lower priority transmission that is occurring, the access control manager denies the request by the buffer for an access link in step 50 step 49.

Please amend the paragraph of the present application, beginning at page 15, line 21 and ending at page 16, line 13, as shown below.

B5
FIG. 5A provides an example of how the available priority levels may be determined for an e-mail application. The wireless network provider has four possible priority levels, and allows the e-mail to be transmitted at any of priority levels 2, 3, or 4, with the default at level 3. In this example, the carrier/service provider does not allow level 1 priority, the highest priority, for e-mail communications to reserve the bandwidth for voice communications. The application developer designed the e-mail application to send e-mails at any of the first three priority levels. Presumably, the lowest priority level, a level 4 priority, is not available because the e-mail application cannot run effectively with low priority. The customer, as part of the service plan with the carrier provider, has pre-designated priority levels 2 and 3 for selection. It may be possible that the customer's service agreement provides for a certain number of e-mail transmissions at each of levels 2 or 3, perhaps as part of a fixed monthly fee. Considering the

26

B

available priority levels common to the carrier, application developer, and customer, a user can select transmission of an e-mail along the wireless network designated as priority level 2 or 3.

Please amend the paragraph of the present application, beginning at page 16, line 14 and ending at page 16, line 21, as shown below.

BS
FIG. 5B provides an example of how the priority levels are determined for a bulk download of a large file or document from an internet web site. The wireless carrier only allows bulk file transfers to be configured as level 4 priority, the lowest priority. Otherwise, the bulk download will overly tax the wireless servers, creating a delay for many other applications. The application developer designed its browser to allow file transfers at any of the priority levels. The customer, as part of the service plan with the carrier, can only pre-designate priority level 4 for selection. Accordingly, the file transfer is to be sent as level 4 priority.

Please amend the paragraph of the present application, beginning at page 20, line 7 and ending at page 20, line 19, as shown below.

Be
At time 1 in FIG. 7, the handset requests capacity to send data packets for a priority level 2 communication. The user has already generated the data to be transmitted and the handset has sent the data to the handset queue as data packets "A." The access control manager sends authorization for the transmission at time 2. At the same time, the handset places data packets "B" into the queue. Since data packets "B" are of a lower priority than data packets "A," the data packets "B" are at the end of the queue (from right to left). At times 3 and 4, the handset

Serial No.: 09/559,594
Art Unit: 2665

Attorney's Docket No.: BS99-185
Page 7

36 sends data packets "A" to the cell side. At time 5, the handset receives a discontinue message to stop sending level 2 priority packets. The ~~handset~~ handset next places data packets "C" of level 1 priority into the queue at time 6, and requests access for a level 1 priority communication. The handset receives authorization to transmit at time 7, and sends data packet "C" at time 8. This operation continues until the queue is empty or radio contact is lost because the handset is out-of-range or the handset is turned off.
